27 September 2023

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By online submission

Improving security frameworks for the energy transmission, second directions paper

Alinta Energy welcomes the opportunity to provide feedback to the AEMC's second directions paper on this matter. While Alinta Energy supports the development of mechanisms to improve security frameworks in the NEM through the transition it is important that any regulatory changes:

1. allow for sufficient certainty of return for new projects that provide system services, including ensuring that the contracting framework is flexible enough to support projects which provide a broad range of power system ancillary services, but which may not be economically competitive in the provision of individual services; and
2. provide mechanisms to compensate existing facilities that provide such services to avoid disorderly transition caused through earlier than expected retirement.

Given this, Alinta Energy supports the AEMC seeking to strengthen the existing procurement frameworks for ancillary services, including allowing AEMO to schedule contracts for security as it supports objective (1). However, in absence of a market such as the Operational Security Mechanism (OSM), further reform is urgently needed to support objective (2).

Alinta Energy notes and understands the concerns described in section 2.2 of the directions paper. However, with respect to the concern outlined in section 2.2.1, that AEMO may not have the capability to specify system security services in operational timeframes, it should be acknowledged that this will be required regardless of whether the OSM or an equivalent is implemented. Even under the incremental changes proposed in the directions paper, it will be necessary for AEMO to determine whether a particular configuration of facilities is within the secure technical operating envelope in an operational timeframe if AEMO is to schedule NSCAS contracts efficiently (particularly in the increasingly complex transmission environment with REZs). Improving understanding and real-time modelling capability around essential system services should remain a priority for the AEMC and AEMO.

With respect to the AEMC's proposal to adjust compensation frameworks for directions, Alinta Energy is of the view that this is a distinct reform from the subject matter of the OSM rule change and that the NEM compensation frameworks generally should be reviewed together as part of a holistic review rather than the piecemeal approach that has been adopted to date. Further, Alinta Energy does not support changing the basis of directions compensation to a benchmarking framework based on short-run marginal cost for the relevant technology type as proposed in the directions paper. Instead we recommend that the AEMC either:

- retain the existing compensation regime, as it is well understood and NER 3.15.7B provides participants confidence that their true economic costs associated with a direction will be covered if it substantially exceeds the default compensation amount; or
- instead of the current default compensation clause set out in NER 3.15.7, consider an average total cost methodology that includes fixed costs and is likely to better approximate outcomes under 3.15.7B.

Alinta Energy has the following comments in respect of the questions raised in the directions paper:

Question 1: Introducing an inertia floor for the mainland NEM for interconnected operation
As with other ancillary services for which there is no market, there is an urgent need for AEMO to improve its understanding of minimum inertia requirements and its modelling capabilities for inertia shortfalls in the operational timeframe. Alinta Energy supports this as a necessary step towards the implementation of a market for inertia.

Question 2: Alignment of inertia and system strength frameworks
The existing framework is not sufficient to provide adequate incentive for investment in technologies that can provide inertia, or to support the co-optimisation of inertia with other essential system services in the operational timeframe, therefore the alignment of procurement frameworks for inertia and system strength is sensible over the short term. However, Alinta Energy maintains its view that a market for inertia, in conjunction with the option for AEMO to engage in structured procurement, where necessary, will provide the best outcome for consumers in the long run.

Question 3: Widening the eligibility of units capable of providing inertia
To the extent that synthetic inertia is a substitute for actual inertia, there is no reason to preclude TNSPs from procuring synthetic inertia to meet a minimum threshold level.

Question 4: Removing the exclusion on inertia and system strength in the NSCAS framework
The use of the existing NSCAS framework is a reasonable stopgap to address the potential for unexpected shortfalls in inertia or system strength within the three-year horizon; however, as noted at the start of this submission, this is not a sufficient solution on its own to achieve the objectives of the broader ancillary services framework for the energy transition.

Question 5: Rit-T exemption
No comment.

Question 6: Commencement arrangements for changes to the inertia framework
Alinta Energy agrees with the AEMC's proposal in respect of commencement.

Questions 7&8: The transitional services framework and sunset clause
Alinta Energy does not object in principle to the creation of a temporary backstop for non-market ancillary services, however the proposed timeline of 7 years until the AEMC reviews the efficacy of this framework, with a 10-year sunset clause is too long. We perceive a risk that this framework will become a permanent solution and stymie the development of improved operational/real-time modelling capability that is necessary to support further unbundling of essential system services. A 3-year review horizon should be sufficient.

Question 9: Placing enablement responsibility on AEMO
Alinta Energy agrees with the AEMC that AEMO is the appropriate body to schedule enablement of security contracts.

Question 10: Enablement levels to support system security
Alinta Energy agrees with the AEMC that circumstances such as where:
- an entire system strength contract is enabled to support a very small amount of IBR dispatch, which would result in inefficiently high costs for consumers. For example, a thermal generator with a 50 MW baseload is enabled to provide a stable voltage waveform for the final 1 MW of a dispatched IBR resource; or

- system strength is enabled to support IBR coming online and the result is that this simply displaces an equivalent amount of IBR that would have otherwise been dispatched. For example, 50 MW of system strength is enabled to support 50 MW of IBR, which displaces 100 MW of IBR from being dispatched elsewhere;

are undesirable.

However, the proposal that AEMO:

1. project the level of expected IBR dispatch over the specified enablement period;
2. determine the amount of system strength required to ensure a stable voltage waveform to host this projected level of IBR;
3. enable system security contracts to fill any system strength gap over the enablement period at least cost, up to the maximum system strength level projected over the planning timeframe with the additional caveats that:
    a. the enablement of system strength contracts results in an overall increase in dispatched IBR and
    b. the total increase in dispatched IBR is greater than the total energy provided by additional system strength contracts.

is sufficiently complex that its implementation may approach the same order of magnitude of cost and technical challenge of the OSM while only achieving a poor approximation of the economic outcomes that a market for such services could provide (AEMO may not have the ability to schedule system security contracts efficiently without such a mechanism, nor would there be any revenue streams available for providers of such services that are not the subject of a system security contract).

Alinta Energy acknowledges that it is difficult to see a viable transitional path for system strength services, but it is not currently clear that this proposal represents an improvement over the previous design of the OSM. A feasibility assessment of this proposal by AEMO with reference to alternatives such as the OSM is required.

Question 11: Enablement principles

The proposed enablement principles are generally appropriate however Alinta Energy would like to better understand the desired outcome of the principle that AEMO would:

> "*aim to — but not be required to — use contracts specifically for their contracted purpose*"

Would the underlying objective here be avoiding distorting the energy market? If this is not intended to be a firm requirement, how does the AEMC envisage that AEMO would implement this principle?

Question 12: Reporting requirements for enabling system security contracts

The transparency requirements proposed by the AEMC are appropriate.

Questions 13-15: Amending the basis of directions compensation to a benchmark-based framework

Alinta Energy does not support the adoption of the benchmark-based framework for directions compensation as it is proposed in the direction paper.

The AEMC states that the current compensation framework for directions is not intended for participants to recover any opportunity costs incurred[1]. The AEMC should reconsider its position in this regard. Contrary to the AEMC's statement, there is no suggestion under NER 3.15.7 or 3.15.7B that opportunity costs are not intended to be covered for directions as part of the default payment at the 90th percentile spot price. Further, NER 3.15.7B explicitly allows for the recovery of loss of revenue incurred as the result of a direction; and there are good reasons why such costs should be covered generally (see for example the objective for compensation for administered pricing events in NER 3.14.6).

[1] AEMC, *Directions Paper: Improving security frameworks for the energy transition*, p 101.

The flexibility of compensation must match the flexibility of directions

Under NER 4.8.9, AEMO has the power to direct a registered participant to take any action to maintain power system security. The breadth of this mandate far exceeds simple scenarios in which AEMO directs a generator to come online and produce electricity at a spot price which is uneconomic. For this reason, NER 3.15.7B provides a backstop that ensures that participants are kept whole in circumstances where the default compensation mechanism falls short. It is not clear whether the AEMC intends also to change this provision given that NER 3.15.7B provides for loss of revenues, and that the AEMC has stated that it does not consider opportunity costs should be compensated for.

Alinta Energy would not support such an amendment of this provision.

The AEMC should consider the impact of NER 3.9.7

The AEMC notes that opportunity costs under the market suspension rule change[2] were not supported as the '*objective of the rule change request is to remove the incentive for generators to await a direction rather than participate voluntarily*'. If the AEMC's aim is to remove the incentive for generators to await a direction rather than participate in dispatch, a better approach would be to improve pricing for constrained-on dispatch under NER 3.9.7 by allowing for limited pay-as-bid. It is an anomaly of the NEM that no compensation be provided for units that are constrained on below their bid price. This is the root cause of many generators withdrawing bids due to uneconomic dispatch, and subsequently requiring AEMO to intervene and direct.

Opportunity costs are real costs

The objective of directions compensation is to ensure that directed participants are kept whole and are indifferent to being the subject of direction. This is important, as it would be undesirable for participants to be incentivised to seek to protect themselves from economic losses associated with directions. However, market participants, like all economic actors, make decisions based on true economic costs (including opportunity costs) rather than simple direct costs. Directed participants face real losses (described by the AEMC as opportunity costs) that are not covered by a mere assessment of direct costs. For example, an energy-constrained 500MW generator that is unable to defend a $300 cap contract due to being directed on earlier in the day could be exposed to losses of up to $7.6m per hour at the market price cap. In our view, the 90th percentile spot price strikes a better balance than the proposal.

SRMCs based on ISP values are not fit for purpose

Setting aside the inapplicability of an SRMC to energy storage facilities, the SRMC of a peaking generator that has been directed to start up and run at its minimum generation level to provide ancillary services is likely to be vastly different from a long-run benchmark SRMC. A 15% premium would be completely inadequate to cover this discrepancy and it is likely most directions would lead to expert referral for further compensation.

Noting the issues raised above with any approach that assesses only direct, variable costs, an average total cost methodology that included fixed costs would be more likely to approximate compensation made based on expert assessment under 3.15.7B than one based on SRMCs. It also has less inherent problems as it applies to energy limited generation.

Question 16: Improving market notices and directions reporting

Alinta Energy does not object to these proposals.

[2] AEMC, *Participant compensation following market suspension*, final determination.

Given that this is the first time the AEMC has raised some of these proposed changes, it seems premature to work through detailed drafting before the AEMC has received feedback on the general proposal. Nevertheless, Alinta Energy raises a small number of issues and recommended solutions with regards to the indicative rule drafting for the AEMC's consideration in the table over the page.

If you would like to discuss this, please contact me at hugh.ridgway@alintaenergy.com.au.

Yours sincerely,

Hugh Ridgway
Wholesale Regulation Manager

Topic	Rule reference	Alinta Energy comment
Acquisition of transitional services by AEMO	3.11.11(b)	This provision may need to be broader than simply acquiring services at the lowest long-term cost. The AEMC should consider aligning the objective with the national electricity objective generally. This provision also potentially conflicts with 3.11.11(e)(2) which requires that parties take into account the need to appropriately remunerate providers of relevant services.
	3.11.11(g)	The AEMC should consider the term 'standard test procedures' is a useful description of the requirement as well as the need to comply 'promptly' with a request from AEMO. These matters should be determined as part of the negotiation of a contract to provide a transitional service.
Enablement Principles	4.4A.4(a)(1)	It will be necessary for AEMO to develop the capability to determine whether a particular configuration of facilities is within the secure technical operating envelope in an operational timeframe if AEMO is to schedule NSCAS contracts efficiently. Consideration should be given as to how AEMO will practically implement this requirement.
	4.4A.4(a)(5)	The complexity of this requirement may require AEMO to develop systems that would involve similar challenges to the OSM (which was rejected on this basis). The feasibility of this requirement should be assessed with reference to the development of a market-based solution such as the OSM.